

A Case Report on Hypokalemia Due To Renal Tubular Acidosis

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Abstract:

Objective: Hypokalemia is a common clinical problem, the cause of which can usually be determined from the history (as with diuretic use, vomiting, or diarrhoea). In some cases, however, the diagnosis is not readily apparent and patient may have recurrent admission if cause has not been treated. so objective of this case report is stepwise approach should be followed in diagnosis of aetiology of hypokalemia

Method(Case Report) : a case of 45 year old female presented with weakness of both lower limb on and off (7 times) in 9 months, she was admitted in various hospital and discharged as a hypokalemic periodic paralysis and again and again she developed similar episodes. patient was treated by oral and intravenous potassium and she was improved at a time. patient was vitally stable so patients abg analysis has not been done for a single time. we ordered many investigations (cbc,lft,rft,abg,urinary potassium,usg abdomen,urine analysis)

Results: Patients investigations (s.k+=2.1,abg=metabolic acidosis,usg s/o stone in renal calyx,urinary k+ 16meq with normal urine analysis)these reports were in favor of distal renal tubular acidosis.

Conclusion: It has been concluded that hypokalemia can lead to various complications(Like paraplegia,arrythemia,paralytic ileus) so it is very necessary to find out an etiology for it and so all possible investigations should be advised in every case unless obvious cause found.

Key Words: Acidosis, Hypokalemia

I. Introduction

Hypokalemia is frequently encountered in clinical practice. It can be due to either potassium deficiency (inadequate potassium intake or excessive potassium loss) or to net potassium shifts from the extracellular to the intracellular compartment. Inadequate dietary intake of potassium alone rarely causes hypokalemia since kidney is able to lower potassium excretion below 15 mmol per day. Hypokalemia due to excessive potassium loss can be due to renal or extrarenal losses. It is not necessary to wait for a timed urine collection for potassium to determine the etiology of hypokalemia. Measurement of spot urine for potassium and creatinine as well as evaluation of acid-base status can be used as an initial step in the diagnosis of hypokalemia. Subsequent evaluations such as measurement of spot urinary chloride, blood pressure, serum aldosterone, renin and cortisol levels may be needed in certain circumstances.

II. Case Report:

2.1 Personal data:

60 year female patient kalaben patil presented with complain of: Bilateral lower limb weakness since one day. She had similar episodes for 7-8 times since last two years and she was hospitalized for the same multiple times.

O/e; vitals=stable

Neurological: plantar and other dtr were absent; tone was decreased in all limbs with zero power in lower limbs

2.2 Investigation:

• 2.2.1 CBC & MP:

Hb- 11.2 gm

PCV – 33

TC -10,100/mm³

Lymphocyte – 16%

Eosinophils -02%

Neutrophils -80%

Platelets -1.20Lacs/mm³

RBC – 3.35 million

MCV -83 fl

MCHC- 29 pg

MP – Neg

• **2.2.2 PT & INR:**

PT – 15 sec
 INR – 1.0
 S.NA,S.K=145/2.4

• **2.2.3 Renal Function Test:**

Urine examination:- Normal.
 S.Creat-1, BU-34.
 Urinary Potassium:32mEq/L

• **2.2.4 Liver Function Test:**

SGPT-25,SGOT-35,ALT-143,
 S.Billi-T/D/I-1.0/0.4/0.6,
 S.Protein-T/A/G-6.7/4.3/2.4,

• **2.2.5 Viral Marker:**

HIV,HbsAg,HCV- negative

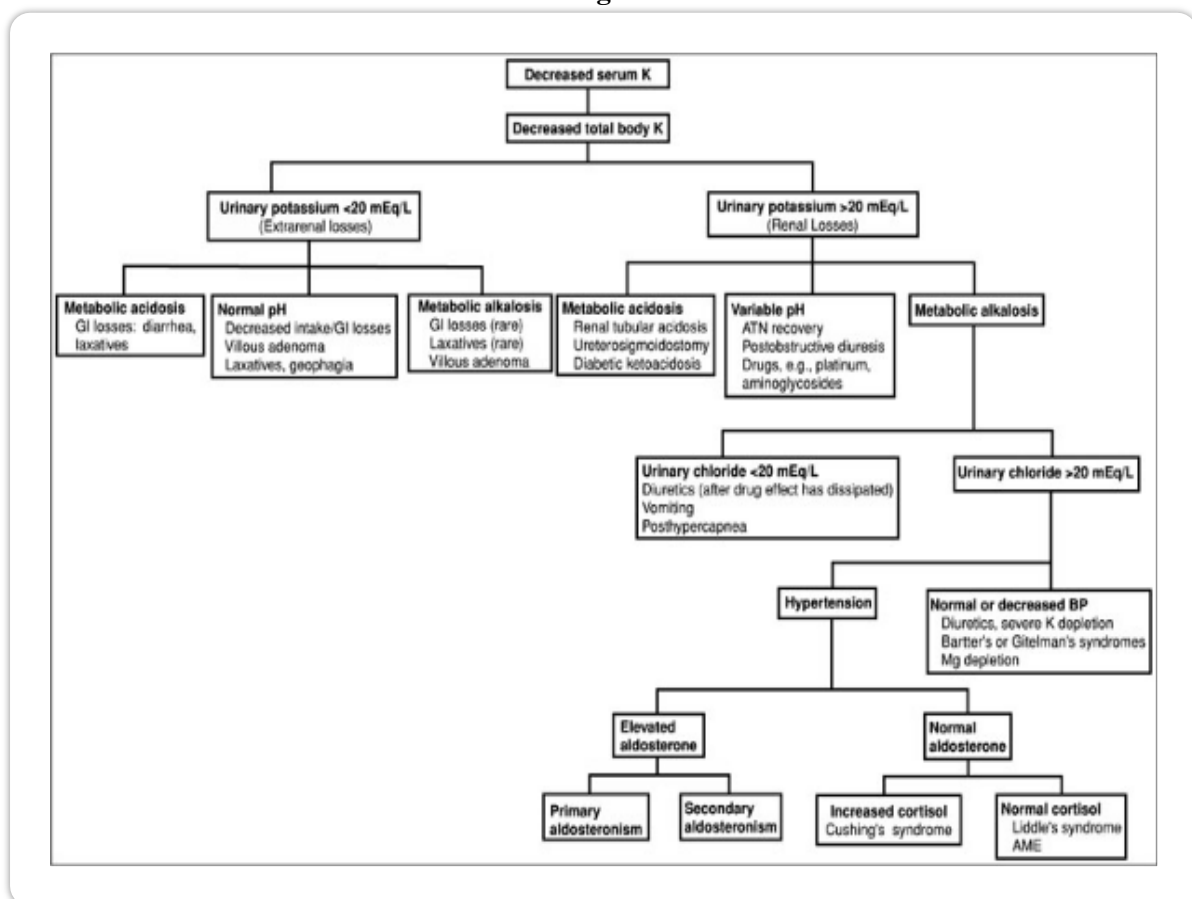
• **2.2.6 Arterial Blood Gas Analysis:**

PH:7.205
 PO2=132.9
 PCO2=15.2
 HCO3-11.3

• **2.2.7 Ultrasound & X-Ray & ECG:**

USG Abdomen- Normal.
 ECG – Normal.
 CXR - lung fiuld clear.

III. Figure :



IV. Conclusion

Hypokalemia Sometimes Can Lead To Arrythmia And Paraplegia So Its Very Important To Find Out The Cause By Stepwise Manner And Treating The Cause So That Future Attacks Of Hypokalemia Can Be Prevented And Improve Quality Of Life.

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